

WHAT IS CLAIMED IS:

1. A stretchable composite sheet comprising an elastic sheet having a stretchability at least one of two directions orthogonal to each other and a sheet-like fibrous assembly having a stretchability in said one of said two directions and joined to at least one surface of said elastic sheet,

said elastic sheet being stretchable in said one direction at least by 80 %; and

said fibrous assembly having an inelastic stretchability and joined to said elastic sheet at binding spots arranged intermittently in said two directions, component fibers constituting said fibrous assembly being curved between each pair of said spots adjacent to each other in said one direction wherein said component fibers are formed by fibers each comprising ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture of at least two selected from said copolymers at 100 ~ 10 % by weight.

2. The composite sheet according to Claim 1, wherein said fibers comprise a mixture of any one of said copolymers and

propylene homopolymer and content of said homopolymer is 0 ~ 90 % by weight.

3. The composite sheet according to Claim 1, wherein said elastic sheet and said fibrous assembly are heat-sealed with each other at said binding spots.

4. A process for making a composite sheet comprising a first web made of thermoplastic synthetic fiber and being inelastically stretchable in one direction and a second web made of thermoplastic synthetic resin and being elastically stretchable at least in said one direction wherein said first web is joined to at least one surface of said second web so that said composite sheet may be elastically stretchable in said one direction;

said process further comprising:

said first web is formed by fibers each comprising ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture of at least two selected from these copolymers at 100 ~ 10 % by weight and has a breaking extension of at least 150 %; said second web being elastically stretchable by at least 80 %

in said one direction; and said first and second webs being joined to each other and stretched to form said stretchable composite sheet by the process comprising the steps of:

a) continuously feeding said first web in said one direction;

b) continuously feeding said second web in said one direction and placing said second web upon said first web;

c) joining said first and second webs having been placed upon each other in step b) to each other intermittently in said one direction and in the direction orthogonal to said one direction, at least in said one direction;

d) stretching said first and second webs having been jointed to each other in step c) in said one direction and said direction orthogonal to said one direction, at least in said one direction within an elasticity limit of said second web and within a breaking extension of said first web; and

e) leaving said first and second webs having been stretched in step d) contract to obtain said composite sheet.

5. The process according to Claim 4, wherein said first and second webs are stretched at least 80 % in said step d).

6. The stretchable composite sheet obtained by the process

according to Claim 4.

1. The method of claim 1, wherein the first set of data is a first set of data and the second set of data is a second set of data.